

ABSTRACT OF THE INVENTION

Dice are disclosed that detect their state, i.e., their own value once at rest, using for instance gravity, piezoelectricity, or photoelectric cells that are assigned to all faces to recognize the lower face. Said dice preferably transmit said state to a computer. Said computer may be the same that is used for the game that depends on the throw of the dice, or may be used mostly for display as for some casino games. Electricity is used in the die to let it determine its own state and transmit it. Economical protocols of transmission are used such as Bluetooth. Such dice may securely send alerts whenever deviations from a fair distribution of the outcomes is detected and can monitor small modifications of their balance to maintain their fairness. Part or all of the teaching can be realized as MEMS(micro electro-mechanical systems) or NEMS (nano electro-mechanical systems) modifications of usual dice.